

DESCRIPTIONS OF SOME NEW ARANEIDÆ OF NEW
SOUTH WALES. No. 10.

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Plate xviii.

The present paper contains descriptions of three apparently new species, viz., one *Storena*, one *Araneus*, and one *Stephanopsis*. A species of *Celenia*, probably *distincta*, O. P. Camb., is also described.

Family ZODARIIDÆ.

Subfamily ZODARIINÆ.

Simon divides this subfamily into five sections, viz., *Hermippeæ*, *Storeneæ*, *Trygetinæ*, *Suffucieæ*, and *Zodarieæ*. The first of these embraces only one species—*Hermippus loricatus*, E. Sim.—and this is only known from Central Africa; the second includes four genera: *Laches*, Thor.; *Storenosoma*, Hogg; *Storena*, Walck.; and *Lutica*, G. Marx;* this is the only group in the *Zodariinæ* that is represented in Australia, and this, again, by two genera—*Storenosoma* and *Storena*. The latter, which is one of the most polymorphous, has a wide range, occurring, according to Simon, in the “*Regio mediterranea occid. et orient.; Afric. trop.; Indo-China; Malaisia; N. Guinea, N. Hollandia, N. Caledonia et Polynesia; Amer. septentr. æquator. et australis.*”

Storena appears to be more numerous in species in Australia than elsewhere, fifteen having been previously recorded, and all from the mainland. *S. formosa*, L. Koch, which was originally recorded from Bowen, and which is not uncommon around Sydney, occurs also in Tasmania.

* Simon, *Hist. Nat. des Araignées*, 2nd ed., pt. ii., 1893, p. 423, *et seq.*

The eyes of the species are very varied, no two forms being exactly alike, whilst in some instances the differences are striking. The form described hereunder is no exception to the rule; it is the first, however, that I have examined in which the eyes are of equal size. The legs are also very variable in respect of their relative lengths. They are as follows: (a) 4, 1, 2, 3; (b) 4, 1, 3, 2; or (c) 4, 2, 3, 1. *S. albomaculata* conforms to the first of these.

A number of Australian species were described by L. Koch under the generic name *Habronestes*, L. Koch. This has been sunk by Simon as a synonym.

Genus STORENA, Walck.

STORENA ALBOMACULATA, sp.nov.

(Plate xviii., figs. 1, 1a.)

♀. Cephalothorax 3·7 mm. long, 2·9 mm. broad; abdomen 5·6 mm. long, 3·5 mm. broad.

Cephalothorax obovate, shining, black, relieved by patches of white, scale-like hairs, and a margin or belt of the same; there are also a few long black hairs scattered over the surface. *Pars cephalica* strongly arched, somewhat obtusely truncated in front, black, relieved on each side (near the margin) by a large and prominent patch of white hairs; normal groove separating cephalic from thoracic segment faintly visible. *Clypeus* broad, fringed with a few rather long black bristles. *Pars thoracica* broad, strongly arched, black, with lateral and posterior patches of white hairs; median and longitudinal groove distinct, lateral radial grooves indistinct; sides and posterior angle declivitous. *Marginal band* broad, thickly clothed with short white hairs.

Eyes prominent, of equal size, and arranged in two procurved rows of four each, of which the posterior is the most strongly bent; those comprising the posterior row are closely set, and nearly touch each other, whilst the four constituting the posterior series are equidistant, each eye being separated from its neighbour by a space equal to about once its own diameter.

Legs moderately long and tapering, robust, black, with patches of white hairs, and throwing metallic scintillations at all the

joints; each ambulatory limb is armed with a few long but not strong spines, and clothed with short black hairs. Relative lengths: 4, 1, 2, 3.

Palpi long, tapering, black, armed with long but not strong spines, and clothed with short black hairs.

Falces black, shining, arched, apices divergent, furnished with long black bristles.

Maxille strong, arched, shining, apices obtuse and divergent, outer angles and upper surface black, inner margins golden brown at base, pale yellowish at tips; inner angles fringed with long white hairs.

Labium broader than long, arched, rounded off at apex, shining, the base black, and the apex golden brown.

Sternum oblong-oval, black, glossy, moderately convex, hairy.

Abdomen ovate, convex, barely overhanging base of cephalothorax, pubescent, black-brown with metallic scintillations, ornamented with large and small median and lateral oval, round, and reniform patches of white hairs, distributed as illustrated in the figure; sides speckled with white; ventral surface dark brown.

Epigyne as in figure.

Loc.—Burwood.

This species, by its scintillations, recalls the Rev. O. P. Cambridge's spider, *S. scintillans*, but differs therefrom not only in size and ornamentation, but also by the fact that the eyes of the posterior row are equally as large as those of the anterior row, whilst in *scintillans* the anterior eyes are much smaller than their posterior neighbours.

Family ARGIOPIDÆ.

Subfamily ARGIOPINÆ.

Genus ARANEUS, Walck.

ARANEUS LIBERALIS, sp.nov.

(Plate xviii., figs. 2, 2a.)

♀. Cephalothorax 2.6 mm. long, 1.8 mm. broad; abdomen 4.4 mm. long, 4 mm. broad.

Cephalothorax obovate, longer than broad, yellowish-brown, smooth, shining. *Pars cephalica* narrow in front, but becoming gradually wider towards the segmental groove, strongly arched, sparingly furnished with pale yellowish pubescence. *Clypeus* broad, sloping inwards, sparingly clothed with fine and moderately long hairs. *Pars thoracica* sparingly pubescent, broad, strongly arched, median longitudinal depression deep, radial grooves distinct. *Marginal band* broad.

Eyes black; the four comprising the median group are of equal size, and elevated upon a tubercular eminence, and form a trapezium; of these the anterior pair are separated from each other by a space equal to twice their individual diameter, whilst those of the second row are less than once their individual diameter apart, and the two rows are separated from each other by a space equal to rather more than the diameter of one eye; the lateral eyes are minute, contiguous, and elevated obliquely upon small tubercles; of each of these pairs the anterior eye is slightly larger than the posterior.

Legs long, tapering, concolorous with cephalothorax, sparingly clothed with yellowish hairs, and armed with long black spines. Relative lengths: 1, 2, 4, 3.

Palpi long, tapering, similar in colour, clothing and armature to legs.

Falces long, concolorous also, arched, smooth, shining, apices divergent, sparingly pubescent; the lower margin of each falx is furnished with a row of four teeth, and the upper with a row of three; fangs reddish-brown.

Maxille pale yellowish, glabrous, convex, inclining inwards, apices truncated, inner margins thickly fringed with long yellowish hairs, surface sparingly hairy.

Labiium concolorous, short, broad, arched, glabrous, convex, obtusely pointed.

Sternum concolorous also, shield-shaped, convex, glabrous, sparingly hairy.

Abdomen broadly ovate, overhanging base of cephalothorax, arched, chrome-yellow, faintly tinged with green down the middle;

upon the superior surface there is a faintly visible leaf-like design, and an ornamental scheme of tracery commencing near the centre, and continuing to posterior extremity; the sides are chrome-yellow, relieved by a series of faint markings as indicated in the figure; ventral surface yellowish-green at the middle, and yellowish-brown laterally.

Epigyne as in figure.

Hab.—Prospect.

Genus *CELÆNIA*, Thor.

CELÆNIA DISTINCTA, O. P. Cambr.

(= *Thlaosoma distinctum*, O. P. Cambr.)

(Plate xviii., figs. 4, 4a, 4b, 4c, 4d, 4e.)

In 1870 the Rev. O. P. Cambridge, F.Z.S., described and figured a spider under the name of *Thlaosoma distinctum** which, judging by his figure (fig. 36), appears to bear a superficial appearance to the one herein described, and which is now included in the national collection at the Australian Museum. The specimen upon which Cambridge founded his species was an old and dry example; moreover it was a single specimen, and vaguely labelled "New Holland." It is, or was, in the Hope Collection, University Museum, Oxford.

Although Cambridge's figure (fig. 36 above referred to) appears, as I have pointed out, to bear a superficial appearance to my specimen, his description and supplementary figure (fig. 37) do not agree in several important details. If, to the possibility that the Hope specimen was an immature example—which Cambridge was unable to determine—it be borne in mind that the type was also *dry*, it will be readily conceived that differences, both in appearance and coloration, from a fresh example would only be natural. Nevertheless there are points mentioned in Cambridge's description which one would hardly expect to undergo change, however old or dry the specimen should be.

It is impossible, in the absence of the type, to say positively whether the example in my possession is distinct or not, and,

* Cambridge, Journ. Linn. Soc. Zool., x., 1870, pp. 274-5, pl. ix., figs. 36-38.

therefore, I prefer for the present to regard it as synonymous with Cambridge's *C. distincta*, and to further elucidate the matter by description and figures.

♀. Cephalothorax 2.4 mm. long, 2.8 mm. broad; abdomen 5 mm. long, 6.6 mm. broad, 8.2 mm. high.

Cephalothorax broader than long, rounded laterally, granulated, and marked with two lateral, parallel, longitudinal grooves; yellowish-brown, densely clothed with short coarse hairs, and having, in addition, two prominent brushes of long, thick, coarse hairs running from the anterior region of the cephalic segment to the posterior angle of the thoracic segment, and there, commencing one on each side of the caput, incline inwards until near the centre, where they meet, and from whence they again gradually widen out, and do not terminate until the posterior angle is attained. *Pars cephalica* arched, ascending, and terminating in front with an obtuse projection or eminence, upon which the four larger eyes are elevated; at the anterior extremity of the caput there are two small projecting tubercles (fig. 4*d*). *Clypeus* broad, deep, sloping inwards. *Pars thoracica* broad, arched; radial grooves indistinct.

Eyes distributed in three series of 2, 4, 2; of these the median group of four are much the largest, and arranged in a somewhat trapezoidal form, the anterior being separated from each other by a space equal to about three times their individual diameter, and the posterior pair by about two diameters; the lateral eyes are seated well back, and each pair is elevated upon a prominent tubercle; they are minute and nearly contiguous; the lower one is somewhat the smaller.

Legs laterigrade, yellowish-brown, clothed with short hairs, and armed with spines; the first and second pairs are much the longest, and are folded when at rest; the femora are rough, granulated, long, hairy, and each has on the underside a deep groove for the reception of the lower joints which fit therein when folded like the blade of a pocket-knife; the edges of the grooves are armed with numerous short, sharp, strong, tooth-like spines; the patellæ are long, attenuated, elbowed at the base; the patella

and tibia of each of the first and second pairs are smooth, and are (together) as long as the femur; the tibiæ are very attenuated; the metatarsi and tarsi are short, armed with small strong spines, and clothed rather thickly with short scale-like hairs; the second and third pairs of legs are short, and thickly clothed with short stiff hairs. Relative lengths: 1 = 2, 4, 3.

Palpi short, concolorous, hairy.

Falces normal.

Maxille short, broad, arched, apices divergent.

Labium short, broad, arched, apex rather more obtuse than in *C. excavata*, L. Koch.

Abdomen overhanging base of cephalothorax, yellow-brown, clothed with short hairs, broader than long, and higher than broad, deeply sculptured, granulated, and surmounted at the summit with two lateral lobes, from each of which a tapering and somewhat acutely pointed process extends; in front there are two prominent and well-defined ridges, uneven in outline, the space between which is rather flat, and punctuated with six deep depressions or pits; the anterior extremity or angle is strongly recurved; the areas to the right and left of the ridges are rough, sculptured, and pitted; sides uneven and wrinkled; behind the contour is somewhat sinuous in outline, the surface rough and uneven, and punctuated with deep pits.

Epigyne: two deep circular pits as in figure.

Loc.—Prospect, near Sydney.

Obs.—According to Cambridge his specimen had “a very distinct pattern on the upper or forward side of the abdomen, formed by lines of pure white, longish, scaly hairs, enclosing various irregularly triangular spaces of deep chocolate-brown, on a paler yellowish-brown ground; three of these patches or spaces are nearly contiguous in the median line, a large one in front, and two smaller ones immediately behind; some small tufts of white hairs also occupy the sides, hinder portion, and other parts of the abdomen.”*

* *Loc. cit.*, p. 274.

Family THOMISIDÆ.

Subfamily STEPHANOPSINÆ.

Genus STEPHANOPSIS, O. P. Cambr.

STEPHANOPSIS OBTUSIFRONS, sp.nov.

(Plate xviii., figs. 3, 3a, 3b.)

♀. Cephalothorax 4·1 mm. long, 3·5 mm. broad; abdomen 5·9 mm. long, 5·3 mm. broad.

Cephalothorax longer than broad, yellowish-brown, coarsely rugose. *Pars cephalica* sloping gently forwards and upwards until near the ocular eminence, where it makes a slight descent, and from whence it rises almost perpendicularly, thereby causing a deep and sharply defined groove at the base of the latter; sides gently rounded; surface coarsely granulated and rugose; the ocular tubercular eminence is not so high as in *altifrons* (O. P. Cambr.) or *aspera* (mihi); the summit is rounded off and obtuse, and the sides and front are somewhat precipitous. *Pars thoracica* broad, gently arched, coarsely rugose and granulated; radial grooves unevenly directed.

Eyes arranged in a ring or corona around the ocular tubercular eminence; the four seated at the rear form a slightly curved series—the curvature directed downwards; they are of equal size and equidistant; in front the two lower eyes are minute, and are separated from each other by a space equal to rather more than once their individual diameter, whilst the upper pair are not only widely separated from each other, but are much the largest of the group.

Legs yellowish-brown, coarsely granulated and rugose; each is armed with short strong spines, and thickly clothed with short fine hairs. Relative lengths: 1, 2, 4, 3; the first and second pairs are much the longest and strongest, and of nearly equal length.

Palpi short, similar in colour, clothing and armature to legs.

Falces concolorous, hairy, apices divergent.

Maxillæ concolorous also, glabrous, punctated, apices inclining inwards, thickly fringed with long yellowish hairs, surfaces furnished sparingly with long hairs.

Labium dark brown, broad, slightly arched, apex narrow and obtusely pointed; a few hairs scattered over its surface.

Sternum normal, yellowish, surrounded with a fringe of rather long coarse hairs; the surface very finely granulated, and closely clothed with short adpressed hairs.

Abdomen somewhat obovate, slightly overhanging base of cephalothorax, moderately arched, yellowish-brown with dark brown markings, the surface being finely tuberculated and granulated; anterior extremity sinuous; at about one-third its length from anterior extremity there are two large but shallow discular depressions, and these are separated from each other by a space equal to about once their individual diameter; at about the centre there are two others, equally as large but wider apart, being separated from each other by a space equal to twice their individual diameter; sides yellowish, marked with dark wavy granulated lines; ventral surface much smoother, dark yellowish-grey, and marked at the middle with two lines of punctures rather widely separated; these commence just below the epigastric fold and run in a tolerably straight line for two-thirds their distance, and then converge inwards towards the spinnerets, but do not meet; those near the spinnerets are much the closest together; in addition to these there are a few smaller lateral punctures scattered promiscuously.

Epigyne as in figure.

Hab.—Jervis Bay.

EXPLANATION OF PLATE XVIII.

- Fig. 1.—*Storena albomaculata* (♀).
 Fig. 1a.— „ „ epigyne.
 Fig. 2.—*Araneus liberalis* (♀).
 Fig. 2a.— „ „ epigyne.
 Fig. 3.—*Stephanopsis obtusifrons* (♀).
 Fig. 3a.— „ „ abdomen, profile.
 Fig. 3b.— „ „ epigyne.
 Fig. 4.—*Celenia distincta* (♀).
 Fig. 4a.— „ „ abdomen from the rear.
 Fig. 4b.— „ „ „ profile.
 Fig. 4c.— „ „ femur of 1st and 2nd legs.
 Fig. 4d.— „ „ caput, profile.
 Fig. 4e.— „ „ epigyne.